



EFFECTIVENESS OF COGNITIVE APPROACH IN TEACHING READING ESP TEXTS

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ABSTRACT

Modern realities in Kazakhstan require skills of communication in a foreign language from an expert in his field. This makes teachers seek for new efficient strategies in teaching. Reading skills enable specialists to be in the know of news and tendencies in the development of science and technique, new technologies. Texts are the main learning material, the source of information and vocabulary.

One of the effective ways of teaching reading ESP texts is using a cognitive strategy. The cognitive strategy implies interaction with teaching materials, manipulating them, requires the use of special techniques for learning. While reading cognitive processes operate. Students use prior knowledge and while constructing dwell upon it.

The study aimed to show the effects of using cognitive strategy in teaching reading ESP texts. An experimental group and a control group of 9 students in each have been created, all the circumstances and teaching materials have been the same in the groups, but the teaching strategies have been different. The study has shown that the students of the experimental group can demonstrate better understanding of the texts after the three – week - experiment. Cognitive strategy requires creativity, diligence and much time from the teacher, but it is worth using.

KEY WORDS: English for specific purposes, cognitive approach, teaching reading, cognitive strategy, cognitive processes, ESP texts.

1. Introduction

The expansion of international cooperation in various fields in Kazakhstan set the demand for qualified, efficient specialists, owning not only skills and abilities on specialty, but also who are able to participate actively in the socio-cultural life of the society. A foreign language emerges as one of the factors that can significantly raise the competitive level of a specialist.

In this regard requirements in teaching a foreign language in higher educational establishments have increased. Future specialists are expected to possess colloquial speech in the professional sphere as well as in everyday life. Development of a competence of this kind is a complicated and time-consuming process in traditional teaching at non-language departments. Moreover an insufficient amount of time is allocated for studying a foreign language at non-language departments, there is no entrance exam on the subject, and the most of students have a low level of it.

Nowadays it is possible to influence the processes of learning strategies, to train them, to expand the range of active ones. In the perspective of the cognitive approach a student is an active leader of the learning process. He actively investigates his training process, as well as his peers' learning ones. A student constructs his own knowledge, this happens in the learning environment, formed by the interaction of the teacher, the student and his peers. The way of realizing the new information must coincide with the natural way of learning inherent in the human psyche. It is necessary to make students develop flexibility in the application for the strategies of learning.

In an ESP (English for Specific Purposes) course texts are the main learning material, they are the source for new vocabulary, information, content, and communicative or reading skills. All students' skills should be taken into account in order to make work with texts as much effective as possible. Reading skills are needed while working with large amounts of information. This ensures the success of specialists in the professional sphere.

2. Theoretical Part

One of the necessary conditions for effective learning English for Specific Purposes is authenticity. «The idea of using authentic language material in teaching a foreign language is generally approved by the vast majority of language teachers, especially in teaching ESP, where it is hoped to be used for achieving a 'real-life communicative purpose'» (Lee, 1995). Properly selected authentic texts are the main base of training material, in which necessary terms, appropriate grammatical phenomena and new specific information exist. «Materials should also function as a link between already learnt ('existing knowledge') and new information.» (Hutchinson and Waters, 1987).

As a rule the ESP texts contain a lot of technical words and are basically of informative character. It is often claimed that it is not the job of the ESP teachers to teach the technical vocabulary (Barber, 1962; Higgins, 1966; Cowan, 1974). Strevens (1973) claims that "learners who know the scientific field may have little difficulty with technical words; but a teacher who doesn't may have a great

deal". Some technical words are international ones, so they don't cause any difficulties for students to understand them. However, according to Jiangwen and Binbin (2013), there are some circumstances when the teacher's help is important:

1. When there are too many unknown technical words the teacher can help the learners to pay attention to those words which are to be focused on.
2. When doing ESP exercises exploiting a particular context with certain technical vocabulary, "it is important that both the teacher and the learners appreciate that this vocabulary is acting as carrier content for an exercise and it is not the real content of the exercise." (Dudley – Evans and St John, 1998)
3. The learners need the teacher's help when they face some general words used as technical ones.
4. If a technical word is not cognate with the equivalent term in the student's native language the teacher will give some explanations.
5. If there is absence of one-to-one relationship between the terms in English and student's native language the teacher should check whether the students understood the term and give them guidance in using appropriate sources.
6. Difficulties with the pronunciation should be solved with the help of the teacher.

Attention and memory, imagination and thinking, emotions and the will, interests of the reader merge, while reading texts in order to understand them. Therefore one of the main psychological problems of teaching reading is activation of mental processes of learners when working with the text. Cognitive strategy implies interaction with learning materials, manipulating them, the use of special techniques for learning. It is a cognitive and affective process where readers "actively engage with the text and build their own understanding". (Braunger and Lewis, 1998). While reading cognitive processes operate. "Reading strategies are the cognitive and metacognitive actions that individuals either consciously decide to use or use automatically when attempting to access a written text." (Macaro, 2002). As for opinions of some specialists cognitive strategies are divided into two groups in accordance with the learning stage. The first group is conceptualization of cognitive strategies, which have been used to understand the concept of education. The second group is cognitive mnemonic strategies. (Lopareva, 2013).

Conceptual cognitive strategies are:

- allocating certain characteristics, identifying facts;
- mapping, establishing correlations;
- classifying the facts, grouping by topic, category, etc.;
- making conclusions by logical induction / deduction;
- generalization;
- systematization;

- interpretation;
- critical assessment;
- detail, illustrating examples;
- transfer;
- reference;
- inference;
- translation.

On the second phase cognitive structures are intensified and improved, that is the ability to implement them in a variety of speech situations is developed. This requires a system of communicatively-directed exercises, full of a variety of productive jobs. Such exercises contribute to the further conceptualization of linguistic phenomena (cognitive aspect), namely:

- analysis and systematization of linguistic facts;
- the establishment of functional connections of various linguistic phenomena;
- finding a causal relationship between linguistic phenomena;
- evaluation of the various courses of action, that is, various methods of expressing the same value depending on the situation and context;
- the consciousness of the relativity of the general laws and regulations;
- approval of external contradictory facts.

In the result the student's ability to self-learning is to be increased.

It is a teacher's job to help students pass through the stages of the cognitive processes. A teacher should train students to use strategies that are optimal for solving problems and to provide the students the ability to get the most important ones out of existing knowledge and skills. In this sense, for the teacher it is vital to understand how to interact learning methods and the student's abilities. It is necessary to offer a student a collaboration that will provide the most favorable way of formation the knowledge.

We confirm that a special group of exercises can be recommended to achieve the objectives and to master the vocabulary, taking into account the requirements of the cognitive approach. The purposes of such exercises can be:

- creating the cognitive image of the word;
- forming stable association ties of the word with the situation, themes and other lexical units (lexical development of memory);
- developing the abilities of students at predicting lexical material;
- developing the skills to encode lexical information in different ways;
- developing lexical creativity;
- actualizing the cognitive image of the words to express intention;
- developing the ability to highlight the structure of the word semis related to the culture of the people, and skillfully using such kind of language.

It is necessary for a teacher to choose an appropriate method of working with ESP vocabulary. It helps the students to understand the whole texts, moreover knowing the terms and the correct use of them develop the professional competence of future specialists. Not all the textbooks contain glossaries; if they contain, not all the glossaries contain the necessary terms. That's why it is very important for students to be able to identify the topical vocabulary in the text. One of the efficient techniques of finding the topical vocabulary in the text is reading the text marking, it is a self-activating system for efficient reading and reflection. This strategy helps students interact with the text and identify what is understood and not understood. Symbols for marking can be: √ - I knew this before. ! - This is new for me. ? - I'm not sure what this means. These symbols can be used not only to mark single words but also the whole utterances or passages. Areas marked with !s and ?s should be clarified through discussion, further reading or research.

"Knowledge of strategies is important because the greater awareness you have of what you are doing, and then learning will be more effective. However, in most classrooms, learners are unaware of the strategies that could otherwise be of help to them in their dealing with the reading materials." (Moghadam, 2008).

3. Classroom observation

In order to identify the effectiveness of the cognitive approach to teaching reading two groups of 9 students (17-22 years old) studying Biotechnology have been selected: A is the experimental group and B is the control group. These students had attended three credits of General English in previous semesters and resulted B to A being tested their language learning backgrounds before the study. The study has lasted three weeks or 9 hours in the class and about 27 hours of inde-

pendent work. Reading materials have been taken from the textbook "English for biotechnologists and biologists" (Voevodina, et al., 2012). The participants have been divided into two groups equally, so that there are no differences between the two in terms of knowledge of English. The reading strategies used in this study have included: Previewing (guessing the content), Identifying the paragraph structure, Connecting or using prior knowledge, Vocabulary (guessing meaning from the context), Determining the main idea, Making conclusions, Asking and answering questions, Sharing ideas. Texts selected for the session were titled: Biological Chemistry (Week One), The Bridge Between Biology and Physics (Week Two) and Physicochemical Methods of Analysis: What Are These? (Week Three). The students had English twice a week – two and one hour classes.

In the experimental group A all stages of work with texts have been discussed and explained by the teacher. The stages Previewing (guessing the content), Identifying the paragraph structure and Connecting or using prior knowledge have been used on the first day (2 hours), the stages Vocabulary (guessing meaning from the context), Determining the main idea, Making conclusions have been done independently in a written form and the stages Asking and answering questions and Sharing ideas have been used on the second class (1 hour). To check and analyze the results in class the teacher has used several techniques which enabled the students to speak and share information. The students have worked in pairs and in small groups.

In the control group B students have read the texts and done the exercises on reading which have been offered in the textbook. There has been no definite structure or strategy of the work with texts. They also have analyzed and discussed. After reading certain technical words or the whole sentence and passages have been explained or translated into the native language.

At the end of the session i.e. having read all the three texts students have passed multiple choice tests and speaking tasks. The results shown by the students of the experimental group have been better than by ones of the control group:

Forms of control	Test (Average score out of 100)	Speaking tasks (Average score out of 100)	Total
Group A	88,5	84,8	86,65
Group B	80,4	78,3	79,35
Comparative data	A>B 9,2%	A>B 7,6%	A>B 8,4%

4. Results and Conclusions

The results of our work reveal the explicit advantage of the cognitive approach in teaching reading ESP texts. During the study mainly reading skills have been focused on, so ESP courses consist not only of reading lessons. At a good ESP lesson all major skills –reading, writing, listening and speaking together with vocabulary, grammar and translation should be communicatively – directed, because only in class non - English-speaking students can try themselves in oral communication under the control of a teacher. An English class is something like a language laboratory for these students. ESP should focus on learner's needs.

Authentic ESP texts provide a realistic context and immerse the reader in a real professional sphere. That's why they motivate though they can be difficult for understanding and must be constantly updated because of the rapid changes of the environment.

In teaching reading in an ESP course vocabulary is crucial. Students should be encouraged to learn as many words as possible, as they must enrich their vocabulary. Vocabulary shouldn't be taught in isolated terms, it should be taught in a context in order to enable the students to use it in speaking practice.

Any ESP text needs to be read marking or underlining unknown words. While marking students analyze and systematize. They use prior knowledge and while constructing dwell upon it.

The role of the teacher is boundless though a communicative – directed class is learner - oriented. The teacher works tirelessly before the lesson thinking how to organize it, what materials and strategies to use, how to motivate students and how to make them independent learners etc. Cognitive strategy requires from the teacher creativity, diligence and much time, but it is worth using.

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